

REMARKS

Claims 1 to 21 are pending in the present application. Claims 1, 17 and 19 have been amended. In view of the following, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

Applicants note with appreciation the acknowledgment of the claim for foreign priority and the indication that all certified copies of the priority documents have been received.

Claims 1 to 21 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,065,446 ("Engl").

Amended claim 1 relates to a method for controlling a drive unit of a vehicle, which includes compensating in steady-state torque losses in an overrun and in an acceleration operation of the drive unit, weighting a steady-state compensation of the torque losses by a first weighting factor in overrun operation, and linearly raising the first weighting factor when a drag torque decreases in amount, until traction operation is reached. As widely understood in the art, traction operation involves the engine driving the vehicle, in contrast with overrun operation, which involves the vehicle driving the engine.

Engl refers to a method for ascertaining a setpoint torque at the clutch of a motor vehicle, in which a setpoint torque is ascertained from a torque factor, a maximum torque and a minimum torque. The torque factor is derived from a pedal value and the rotational speed. The maximum and the minimum torque are ascertained as a function of the rotational speed, a loss torque and the performance parameters. The loss torque is ascertained as a function of the rotational speed and the performance parameters. According to column 6, lines 36 to 62, the minimum torque TQ_MIN corresponds in all operating states, except for the operating state of the overrun fuel cutoff, to the value of the output variable of block B37 in Figure 5. In the operating state of the overrun fuel cutoff, the minimum torque TQ_MIN corresponds to the negative value of the loss torque TQ_LOSS. Consequently, the entire loss torque TQ_LOSS can be used in a downhill run of the motor vehicle in which the internal combustion engine is in the operating state of the overrun fuel cutoff. If the rotational speed falls from the rotational speed N_PUC of the overrun fuel cutoff to the setpoint idle speed N_SP_IS, then the minimum torque TQ_MIN is reduced in a linear manner to the integral factor TQ_DIF_IS_I and, if the drive gear of the automatic transmission is engaged, to the loss torque TQ_CON of the converter. This ensures that the loss torque TQ_LOSS at rotational speeds N, which are equal or smaller than the setpoint idle speed N_SP_IS, is not used for braking the motor vehicle, so that the engine operation remains stable. Above the

rotational speed N_{PUC} of the overrun fuel cutoff of the internal combustion engine, the minimum torque TQ_{MIN} corresponds to the negative value of the loss torque TQ_{LOSS} , and it may therefore be used entirely for decelerating the motor vehicle.

Engl thus concerns the compensation for the loss torques in overrun operation, when the rotational speed of the overrun fuel cutoff falls to the setpoint idle speed, in order to prevent the engine from stalling. The criterion for raising the compensation of the loss torques in Engl is thus the characteristic of the rotational speed in comparison to the setpoint idle speed. By contrast, the subject matter of claim 1 concerns the raising of the stationary compensation of the loss torques in overrun operations at a quantitatively decreasing drag torque in a linear manner until the traction operation is reached. Thus, in the subject matter of claim 1, the criterion for raising the compensation of the loss torques is not the idle speed, but rather the transition from the overrun operation to the traction operation. In this context, the drop of the rotational speed below the setpoint idle speed (as taught by Engl) is not equivalent to the transition from the overrun operation to the traction operation. In the transition from the overrun operation to the traction operation, the engine speed normally does not decrease, but rather increases, and above all, it does not fall below the setpoint idle speed.

While Engl is concerned with avoiding undershooting the setpoint idle speed and thus preventing the motor vehicle from stalling, the subject matter of claim 1 provides the advantage that, for example, in the case of an active driving speed control in an overrun operation, there is no permanent switching on and off of one or several ancillary components for establishing a braking action, but rather provides a constant partial compensation of the torque requirement of the ancillary components, thus increasing the driving comfort. The objective in this instance is not to prevent the engine from stalling due to an undershooting of the setpoint engine speed. Accordingly, for at least these reasons, Engl does not identically disclose, or even suggest, the features of claim 1, and thus Engl does not anticipate claim 1.

As regards claims 2 to 21, which depend either directly or indirectly from claim 1 and therefore include all of the features of claim 1, it is respectfully submitted that Engl does not anticipate these claims for at least the reasons stated in connection with claim 1.


In view of all of the foregoing, withdrawal of the anticipation rejection is respectfully requested.

In sum, claims 1 to 21 are allowable.

Conclusion

In view of the foregoing, it is respectfully submitted that all of the presently pending claims are allowable. It is therefore respectfully requested that the objections and rejections be withdrawn. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is respectfully requested.

Respectfully submitted,

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